

ENVIRONMENTAL CONTEXT

~~The Addison Plantation~~ ^{Project A} area is located near the town of Oxon Hill in Prince Georges County, Maryland. This lies within the Western Shore Division of the upper Atlantic Coastal Plain physiographic province. The Coastal Plain is underlain by unconsolidated gravels, sands, silts, and clays ranging in age from the Cretaceous near the Fall Line to recent on the on the floodplains. The Fall Line represents the greatest extent of inundation by the sea during the Mesozoic and Cretaceous. Subsequent uplift exposed the Coastal Plain creating a zone of contact between the pre-Cambrian crystalline rocks of the Piedmont and unconsolidated deposits of the Coastal Plain. Differential rates of erosion create^d a drop in stream gradient; hence the term Fall Line (Cooke et al. 1952, Edwards 1981, Kirby et al. 1967).

Relief in this central portion of Prince Georges County is nearly level to gently sloping, low plateau. Near the Potomac River, however, the plateau is dissected by V-shaped valleys with the short, steep slopes. Alluvial terraces border the Potomac River. The ~~Project~~^P area overlooks the Potomac area from a highland spur. This spur slopes to the southwest with a steep gulley running along its southeast border. Soils (Kirby et al. 1967) reflect this physiography. Steep, silty and clayey land (SpE) and Collington fine sandy loam, 15-40 percent slopes (CmE2) occupy the southwest trending hillslope and the gulley slopes. These soils are highly sensitive to any form of ^{modification} ~~development~~. In contrast, the soils of the flatter hilltop areas (Beltsville silt loam, 2-5 percent slopes^X) and the base of the hillslope (Sassafras sandy loam, 2-5 percent

slopes), are well drained and suitable for residential occupation. They are also highly desirable soils for crop production.

Drainage of the ^Project ^Area is direct into the Potomac River. The eastern shoreline is approximately ^{one-half mile} ~~6 miles~~ away from the southwest terminus of the project area. Because the river is tidal to about this point, ocean going ships could travel at least this far inland. Consequently, initial European settlement during the seventeenth and eighteenth centuries was concentrated within this region (Miller 1984).

Other drainages pertinent to settlement include Oxon Creek, the mouth of which is about ^{three-quarters of a} ~~75~~ miles away. The distances to these water sources would not have been conducive to ^{long term} prehistoric settlement within the ^Project ^Area. This, coupled with the elevation of the ^Project ^Area, 18 to 60 meters AMSL, strongly suggests a low probability of substantial prehistoric occupations. Less than ^{five} ~~5~~ percent of all sites were found at elevations greater than ^{ten} ~~10~~ meters ⁱⁿ ~~at~~ Steponaitis' survey of the South River drainage basin (1978).

Of equal import to prehistoric settlement are the physiographic and ecological changes associated with the late and post-glacial rise of sea level ⁷ (Kraft 1987, Kraft et al. 1976). For at least the past 8,000 years, sea level has steadily risen, allowing for short term perturbations, approximately 25 meters. Many prehistoric site^s _^ may consequently be deeply buried or underwater. The tidal region and drainage characteristics of the nearby Potomac River would also have

been markedly different; likewise the distribution of estuarine and riverine food resources. The specific effects of such changes upon prehistoric settlement patterns in the tidewater regions of the Potomac are not ^{well} known. Even in more extensively studied regions (e.g. Custer 1984), our understanding is far from complete.

Prince George's County has a humid, temperate, semi-continental climate. Mild winters contrast with warm, moist summers. Spring and fall are the most pleasant season. Annual precipitation averages 45 inches. Serious drought is most likely a summer phenomena. The growing season is in excess of 160 days (Kirby et al. 1967).

The combination of lowlands and uplands along the tidal Potomac River supported a diversity of vegetation and wildlife resources prior to deforestation and overhunting. The forest of this region is classified as the oak-hickory type of the Temperate Deciduous Forest Biome (Shelford 1963). The presettlement forest was probably dominated by a variety of oak species, chestnut, hickory, sweetgum, and yellow poplar with less ^Pine than today. In addition to nut bearing tree species, various fruit bearing trees and shrubs, and seed producing weedy annuals were also present in the forest, forest edge, and disturbed environments. Areas of tidal marsh supported coarse grasses, rushes, and salt tolerant shrubs or even small trees (Braun 1950, Kirby et al. 1967).

Faunal resources were undoubtedly richer and more diverse in the past as suggested by Miller's (1984) inventory of species known to have occurred in the Chesapeake Tidewater region of Maryland. Animals present in the past and extinct in the region today include such species as passenger pigeon, heath hen, Carolina parakeet, elk, bison, and gray wolf. Located along the Atlantic Flyway, migratory species would have been plentiful during long periods of the year. Fish would have abounded in the Potomac River, especially anadromous species during their movements to spawning areas in the upper freshwater river-estuaries. Shellfish also would have been available, although modern oyster beds are located closer to the outlet of the Potomac into Chesapeake Bay.

Prehistoric Background

The following is a brief synthesis of the prehistoric sequence from the Potomac River valley. It is based upon research conducted in the Middle Atlantic region. Our knowledge of the prehistory of this region, however, is incomplete. Major gaps in our understanding of this sequence are therefore partially filled by extrapolating data from surrounding areas. When possible, emphasis is placed upon the relevance of this data base to the local area, ^{bordering the Potomac River} especially Prince Georges County, Maryland and Fairfax County, Virginia.

Eastern North American prehistory is usually discussed in terms of major temporal periods characterized by different cultural configurations and adaptations to the natural environment. The general sequence beginning with the Paleo-Indian period, followed by the Archaic Period, ending

with the Woodland period will be followed here. Other schemes (Chittenden et al. 1988, Custer 1984) have been offered for this region, but are neither widely accepted nor directly comparable with data elsewhere in the Eastern United States.

Paleo-Indian groups (c.a. 10,000⁺-8,000 BC) are characterized as highly mobile hunters of late Pleistocene megafauna such as mastodon, mammoth, horse, camel, and bison (e.g. Mason 1962, Gardner 1974). The environment was in a state of change as the ice sheets retreated to the north with areas of tundra, park tundra, and spruce woodland. These environments and their complex, often mosaic, distributions required a great deal of adaptive flexibility. Early penetration into the Eastern United States is represented by materials from Stratum II at Meadowcraft Rockshelter at 11,300 BC to as early as 19,600 BC (Carlisle and Adovasio 1982:83). With few exceptions, known sites are rare and are often surface finds of diagnostic fluted points suggesting low population densities. The Thunderbird site (Gardner 1974) in the Shenandoah River valley is one of the few well-documented sites along this segment of the east coast. Paleo-Indian occupation along the Tidewater Potomac areas of Fairfax (Virginia) and Prince Georges (Maryland) counties are indicated by the presence of four and six projectile points, respectively (Chittenden et al. 1988, Humphrey and Chambers 1977).

The beginning of the Archaic Period (c.a. 8,000 BC-1,000 BC) is roughly coeval with the extinction of the big game of the late glacial period. The warming trend begun during the latter period continued and coincided

with an overall decrease in moisture during the Early (8,000 BC-6,000 BC) and Middle (6,000 BC-4,000 BC) Archaic sub-periods. ⁿ ~~As~~ essentially modern forest was achieved by about 6,000 BC (Carbone 1976). And, despite the lowered moisture regime, the tidewater region of the Potomac expanded, and freshwater swamps may have developed in certain areas as water tables rose in response to sea level rise (Custer 1986, Kraft 1977, Kraft et al. 1976).

Archaic peoples therefore came to increasingly expand their economic base, depending upon white-tailed deer, elk, raccoon and many smaller mammals as well as birds, turtles, fish, and shellfish. Evidence for nuts, seeds, and other plant foods of the deciduous forests also becomes more common. The general pattern of settlement during the Early Archaic is one of increasing numbers of sites. Custer's study of the distribution of Early Archaic sites on the Delmarva Peninsula ⁽¹⁹⁸⁶⁾ may be informative for the Tidewater Potomac region as well. In the former area an increasing number of environmental settings were utilized through time. This reflects the concomitant environmental and economic changes outlined above.

The Middle Archaic sub-period (6,000 BC-4,000 BC) witnesses a drop in site densities on a local scale (Chittenden et al. 1988); this may not be true on a regional basis (see Turner 1978). A number of natural and cultural factors may be responsible including a less than perfect knowledge of the diagnostic artifacts at this time. Nevertheless, the near absence of Middle Archaic components is illustrated by site 18 BA

71. Here, both Early and Late Archaic components are well represented. The Middle Archaic in contrast, is indicated by two possible Kanawha stemmed points at the beginning of this sub-period and five Otter Creek points which date to the very end of this sub-period into the Late Archaic; Morrow Mountain and Guilford Lanceolate points are conspicuous by their absence. ^(Vivelli 1975)
^

The Late Archaic sub-period (c.a. 4000 BC-1,000 BC) sees a number of cultural and environmental changes. The most severe conditions of the warm-dry Atlantic-xerothermic climate characterize the beginning of this sub-period (Carbone 1976). Yet, Halifax (Coe 1964) and Vernon (Stephenson and Ferguson 1963) points, and sites having ^{these} ~~this~~ point style^s, are extremely common. In Fairfax, ~~Virginia~~, County, they outnumber all other phases in the prehistoric record and occur in all types of ecological settings (Chittenden et al. 1988) suggesting an intensification in the use of all areas.

By about 3000 BC, the climate begins to ameliorate. Floral and faunal communities become essentially modern (Carbone 1976) and sea level rises to within 3.4 meters of present levels (Kraft and Chacko 1978) by about 1000 BC. Although evidence is ^{scant} ~~poor~~ in this region, the first intentional cultivation of tropical cultigens probably occurred at this time (see Carlisle and Adovasio 1982). ^{And, by} ~~and, by~~ 2,500 BC, the BROADSPEAR ^{tradition} emerges. This ^a is associated with the use of steatite bowls and a settlement shift to a strong riverine adaptation (Turnbaugh 1975). The first systematic exploitation of anadromous fish may occur at this

time (Cavallo 1987). Intensive exploitation of molluscs, especially oysters, may also begin during this period of time in the Tidewater areas, although some evidence suggests this intensification was delayed until later Woodland times (McNett and Gardner 1971, Steonaitis 1978, Chittenden et al. 1988).

The Woodland period (c.a. 1,000 BC-1,600 AD) arbitrarily begins with the use of pottery across the Eastern Woodlands. Trends started in the Late Archaic such as horticulture and mortuary ceremonialism are elaborated (Griffin 1967). In contrast to the Midwest, mortuary influences are largely Adena-related; later, Hopewell connections are minimal (Thurman 1985). The first pottery in the region is the steatite tempered, ~~plain-~~
~~and-cord-marked~~ Marcy Creek series. A continuation of the Terminal Archaic lifeway is assumed for this period although settlement data is scarce.

The shift from the Early Woodland (c.a. 1,000 BC-400 BC) to the Middle ~~Woodland~~ (c.a. 400 BC-AD 800) is recognized by the predominance of net impressed ceramic types. Projectile points include the Rossville, Piscataway, (contra Stephenson & Ferguson 1963) and, later Fox Creek-related types. The exact ceramic sequence is subject to some dispute (compare Stewart 1987 and Thurman 1987) but the pervasiveness of Mockley type ceramics on the Coastal Plain c.a. 200-800 AD seems clear. A settlement system suggesting an intensive estuarine focus is seen. A smaller number of sites not associated with shell middens may represent logistic bases for the exploitation of upland-riverine resources

(Steponaitis 1978). Direct associations with aceramic lithics-producing sites in the interior is lacking (Chittenden et al. 1988).

During the Late Woodland period (c.a. AD 800-1600), cultigens such as corn, beans, and squash, play an increasingly dominant role in subsistence. By AD 900, large, ~~at least~~ ^{or permanent} semi-permanent [^]villages with Rappahannock and Townsend pottery, begin to appear (Thurman 1985). Although previous settlement systems showed a marked preference for riverine/estuarine locations, the presence of soils suitable for crop production were now given equal consideration. Thus, any large, flat plateau or terrace adjacent to a major watercourse has a high potential for occupation (Chittenden et al. 1988) ^{the purpose of} for [^]harvesting estuarine resources, crops, or both. Less permanent occupations are seen at interior locations. Other archeologically recognizable changes include the appearance of the bow and arrow as manifested in the triangular point type and a proliferation of ceramic types corresponding to ethnohistorically derived linguistic boundaries (Stewart 1987, Thurman 1985).

With the intensification of sedentary village life, complex tribal and perhaps ranked socio-political organizations evolve. Archeological evidence for ranked socio-political systems, including mortuary evidence from ossuaries and individual graves, is tenuous (Turner 1986) and may not have been achieved until very late if at all (Thurman 1985). Regardless, an increase in social complexity is evident especially compared to the Middle Woodland period. This trend toward increasing

social complexity is fueled by increased sedentism, population growth, and greater agricultural dependency (Custer 1986^b₁). It is manifested in the archeological record with the increased nucleation of settlements and presence of fortifications. The latter implies inter-group conflict as one result of these proceses.

Braun, E. Lucy

1950 Deciduous Forests of Eastern North America.

Blackiston and Company, Philadelphia

Carbone, Victor A.

1976 Environment and Prehistory in the
Shenandoah Valley. Unpublished Ph.D.
Dissertation, The Catholic University,
Washington D.C.

Carlisle, R. C., and J. M. Adovasio (eds.)

1982 Meadowcroft: Collected Papers on the
Archaeology of Meadowcroft Rockshelter
and the Cross Creek Drainage, University
of Pittsburgh Press, Pittsburgh.

Cavallo, John

1987 Area B (28 ME 1-B): Archaeological
Data Recovery I-295, and Wetlands
Area Interchange, Louis Berger and

Associates, Inc. Trenton Complex Archaeology:
Report 8.

The Cultural
Resource Group.

Chittenden, B., E. S. David, S. L. Henry,
M. F. Johnson, M. R. Williams.

1988 Fairfax County Heritage Resource Management
Plan. Heritage Resources Branch, Office
of Comprehensive Planning, Falls Church,
Virginia.

Coe, Joffre L.

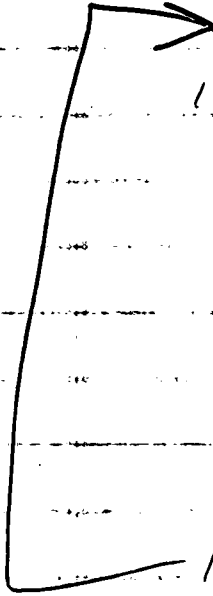
1964 The Formative Cultures of the Piedmont.

Transactions of the American Philosophical
Society (New Series) 54 (part 5).

Cooke, C. W., R. O. Martin, and G. Meyer
1952 Geology and Water Resources of Prince
Georges County. State of Maryland,
Department of Geology, Mines, and
Water Resources. Bulletin 10.

Custer, Jay F.

1984 Delaware Prehistoric Archaeology: An Ecological Approach. University of Delaware Press, Newark.



1986b Late Woodland Cultural Diversity in the Middle Atlantic: An Evolutionary Perspective. In Late Woodland Cultures of the Middle Atlantic Region edited by Jay F. Custer, University of Delaware Press, Newark, pp. 143-168.

1986a Analysis of Early Holocene Projectile Points and Site Locations from the Delmarva Peninsula. Archaeology of Eastern North America 14: 45-64.

Edwards, Jonathan, Jr

1981 A Brief Description of the Geology of Maryland.

Maryland Geological Survey.

Gardner, William M. (ed).

1974 The Flint Run Paleo-Indian Complex: A Preliminary Report, 1971-1973 seasons.

Occasional Publication No. 1, Catholic University Archaeology Laboratory, Washington D.C.

Humphrey, Robert A. and Elizabeth Chambers
1977 Ancient Washington: American Indian
Cultures of the Potomac Valley. G.W.
Washington Studies No. 6, George
Washington University, Washington D.C.

Kirby, Robert M., Earle D. Matthews, and Moulton
A. Bailey.

1967 Soil Survey of Prince Georges County,
Maryland. Soil Conservation Service,
Washington D.C.

Kraft, John C.

1977 Late Quaternary Paleogeographic Changes in the Coastal Environments of Delaware, Middle Atlantic Bight, Related to Archaeological settings. Annals of the New York Academy of Sciences 228: 35-69.

Kraft, John C., E. A. Allen, D. F. Belknap, J. J. Chacko, and E. M. Maurmeyer.

1976 Delaware's Changing Shoreline. Technical Report No. 1, Delaware Coastal Zone Management Program, Delaware State Planning Office, Dover.

Kraft, John C. and John J. Chacko

1978 Paleogeographic Analysis of Coastal Archaeological Settings in Delaware. Archaeology of Eastern North America 6: 41-59.

Griffin, James B.

1967 Eastern North American Archaeology:
A Summary. Science 156: 175-191.

Mason, Ronald J.

1962 The Paleo-Indian Tradition in Eastern
North America. *Current Anthropology* 3(3):
227-283.

McNett, Charles W., Jr. and William M. Gardner
1971 Shell middens of the Potomac Coastal
Plain. Paper presented at the Second
Middle Atlantic Archeology Conference,
Washington, D. C.

Miller, Henry Michael

1984 Colonization and Subsistence Change on the
17th Century Chesapeake Frontier. Unpublished
Ph.D. Dissertation, Michigan State University.

Shelford, Victor E.

1963 The Ecology of North America. University
of Illinois Press, Urbana.

Stephenson, Robert L. and Alice L.-L. Ferguson.

1963 The Accokeek Creek Site. A Middle Atlantic
Seaboard Culture Sequence. Anthropological
Papers No. 20. Museum of Anthropology,
University of Michigan, Ann Arbor.

Steponaitis, Laurie C.

1978 An Archeological Survey of the South River
Drainage Basin, Anne Arundel County,
Maryland. Prepared for The Maryland
Geological Survey and The Maryland
Historical Trust.

Stewart, R. Michael

1987 Catharsis: Comments on Thurman's
Coastal Plains Synthesis Journal of
Middle Atlantic Archaeology 3: 111-124.

Thurman, Melburn D.

1985 "A Cultural Synthesis of the Middle Atlantic Coastal Plain. Part 1: "Culture Area" and Regional Sequence. Journal of Middle Atlantic Archaeology 1: 7-32.

Thurman, Melburn D.

1987 "A Funny Thing Happened to Archaeological Data Coming back from Delaware": Some Models for Middle Atlantic Archaeology. Journal of Middle Atlantic Archaeology 3: 125-141.

Turnbaugh, William A.

1975 Toward an Explanation of the Broadpoint
Dispersal in Eastern North American
Prehistory. Journal of Anthropological
Research 31(1): 51-68.

Turner, E. Randolph ~~Turner~~

1978 Population Distribution in the Virginia Coastal Plain, 8000 B.C. to A.D. 1600. Archaeology of Eastern North America 6 : 60-71.

1986 Difficulties in the Archaeological Identification of Chiefdoms as seen in the Virginia Coastal Plain during the Late Woodland and Early Historic Periods. In Late Woodland Cultures of the Middle Atlantic Region edited by Jay F. Custer, University of Delaware Press, Newark, pp. 19-28.

Vitelli, Karen D. (ed)

1975 The U.M.B.C. Site 18 Ba 71. Archaeological
Society of Maryland, Miscellaneous
Papers No. 10.